

Ontogenetic changes in the diet of the herbivorous *Scartichthys viridis* in a rocky intertidal zone in central Chile

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Abstract

Scartichthys viridis maintains a herbivorous diet following recruitment to rocky intertidal areas, where it consumes almost exclusively macroalgae. The sheet-like green macroalgae *Ulva* and *Enteromorpha* were the main items consumed by individuals <130 mm L_T . The tough branching red macroalga *Gelidium* made the bulk of the gut contents of specimens >220 mm L_T , *Ulva* being consumed to a much lesser extent. Further, *Gelidium* increased in importance in the total gut contents during ontogeny. In contrast, both small (70–120 mm L_T) and medium-sized (140–210 mm L_T) *S. viridis* individuals preferred *Ulva* in the laboratory. It is suggested that the increasing consumption of *Gelidium* along the ontogeny of *S. viridis* results from the limited availability of *Ulva* in the field. Large *S. viridis* individuals possessed longer guts relative to their body length, in comparison with small individuals.